


LIGHT EMITTING DIODE AND DISPLAY DEVICE USING THE SAME

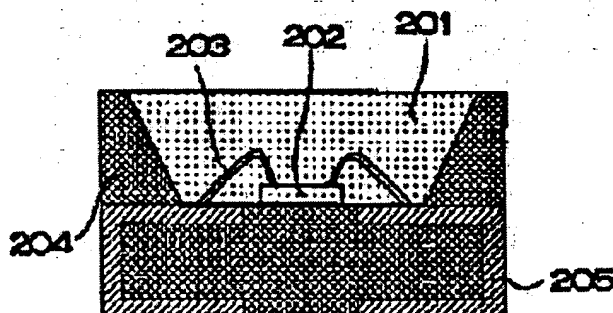
Patent number: JP10242513
Publication date: 1998-09-11
Inventor: SHIMIZU YOSHINORI; SAKANO AKIMASA
Applicant: NICHIA CHEM IND LTD
Classification:
- **international:** H01L33/00; G09F9/00; H04N5/66
- **european:**
Application number: JP19970218149 19970728
Priority number(s):

Also published as:

 JP10242513 (A)**Abstract of JP10242513**

PROBLEM TO BE SOLVED: To reduce the luminous efficiency deterioration and color slurring of a light emitting diode even when the diode is used for a long time under a high-luminance condition, by respectively constituting the LED chip and photoluminescent phosphor of the diode of a nitride compound semiconductor and cerium-reactivated yttrium aluminum garnet phosphor.

SOLUTION: An LED chip 202 using a gallium nitride semiconductor is fixed in an enclosure 204 of a chip type LED with an epoxy resin, etc. An epoxy resin in which a $(RE_{1-x}Sm_x)_3(AlyGa_{1-y})_5O_{12}:Ce$ phosphor is scattered is uniformly cured as a molded member 201 which protects the LED chip 202, conductive wires, etc., from the external stresses. The cerium-reactivated yttrium aluminum garnet phosphor is scattered in the epoxy resin as a photoluminescent phosphor.



Data supplied from the esp@cenet database - Worldwide

BEST AVAILABLE COPY